

WE CLAIM;

I. A fluid dispensing apparatus for transferring a fluid from a reservoir of fluid through a control device to a location remote from said reservoir which comprises in combination:

an elongated tube member having an upper compartment and a lower compartment separated from each other by a fluid tight barrier therein;

a battery operated drive motor positioned in the upper compartment of said tube member;

a fluid pump means operatively mounted in the bottom of said lower compartment of said tube member;

a drive shaft operatively connected to and extending from said pump to adjacent said drive motor within said tube member;

said drive shaft being physically separated from but operatively connected to said motor;

a fluid outlet port formed in said tube member lower compartment adjacent the top thereof;

a fluid discharging member having a discharge nozzle assembly and a fluid input pipe operatively connected thereto ;

a dual tubular flexible tubing member extending between said elongated tube member and said fluid discharging member;

rechargeable battery means mounted in the handle of said discharging member;

switch means positioned in said discharging member;

electric conductors positioned in one of said dual tubes of said tubing member;

said electric conductors being connected to said battery means, switch means and said drive motor; and

said other tube of said dual tubing member being connected to said tube member fluid outlet port and said fluid input pipe of said discharging member;

whereby upon actuation of said switch means said motor drives said fluid pump means to transfer fluid from a reservoir thereof to said discharging member for dispensing therefrom.

2. The dispensing apparatus of claim 1 wherein:

said tube member has a small diameter cylindrical cross section to permit insertion through the fill openings of fluid containers; and

said fluid pump means includes a centrifugal pump positioned in the bottom of said tube member to pump fluid up through said tube member to said fluid outlet port and said fluid discharging member.

3. The dispensing apparatus of claim 2 wherein

said centrifugal pump comprises a cylindrical impeller having a diameter slightly less than the internal diameter of said elongated tube member, a small counter bore in the bottom center thereof, and a plurality of small holes angled downwardly and inwardly from the top outer periphery of said impeller to said small counter bore at the bottom center thereof; and

a seal plate fixed in the open end of said elongated tube member bottom having a central hole opposite said impeller counter bore to admit fluid to be pumped and prevent pumped fluid from returning to the fluid reservoir when said impeller is rotated.

4. The dispensing apparatus of claim 2 wherein:

said drive shaft has affixed to the top thereof a small disc having a plurality of magnets mounted thereon;

a shaft extending from said drive motor and having affixed to the end thereof a corresponding small disc and plurality of magnets mounted thereon; and

said discs being positioned on either side of said elongated tube member fluid tight barrier to operatively engage said drive motor to said pump means impeller.

5. The dispensing apparatus of claim 1 wherein:

said fluid pump means comprises a centrifugal pump having a cylindrical housing with an input end and an output end formed within the bottom end of said elongated tube member;

a bushing fixed in said cylindrical housing adjacent but spaced from said input end and supporting therein said drive shaft lower end;

a cylindrical impeller fixed on the lower end of said drive shaft for rotation in said bushing in operative position with said input end;

said cylindrical impeller having a diameter slightly less than said cylindrical housing, a small counter bore in the bottom center thereof, and a plurality of small holes angled downwardly and inwardly from the top outer periphery of said impeller to said small counter bore at the bottom center thereof;

said bushing having at least two slots in the periphery to permit passage therethrough of pumped fluid; and

a fluid seal member fixed in said cylindrical housing input end having a central hole to permit entry of fluid to be pumped into said impeller counter bore and prevent return of fluid to the fluid to be pumped from said impeller outer periphery.

6. A fluid dispensing apparatus for pumping a liquid from a reservoir to a spray gun which comprises in combination:

an elongated tube member having a top compartment and a bottom compartment separated from each other by a fluid tight barrier therein;

a battery operated drive motor positioned in the top compartment of said elongated tube member;

a pump operatively mounted in the bottom compartment of said elongated tube member;

an elongated drive shaft operatively connected to and extending from said pump to adjacent said drive motor within said elongated tube member;

said drive shaft and said drive motor each having a rotatable disc fixed thereto on either side of said barrier and a plurality of magnets mounted on said discs;

cap means closing the bottom end of said elongated tube bottom compartment to form a pump chamber and an opening in said cap to admit fluid into said pump chamber;

an outlet port formed in said elongated tube bottom compartment adjacent the top thereof;

a liquid dispensing pistol grip gun member having a discharge nozzle assembly and an input pipe operatively connected thereto ;

a dual tube flexible tubing member positioned between said elongated tube member outlet port and said gun member input pipe;

rechargeable battery means mounted in the handle of said gun member;

switch means positioned in the pistol grip portion of said gun member;

electric conductors positioned in one of said dual tubes of said flexible tubing member;

said electric conductors being connected to said battery means, switch means and said drive motor;

said other tube of said flexible tubing member being connected to said elongated tube member outlet port and said input pipe of said gun member; and

a fluid tight cap assembly adjustably mounted about said elongated tube member to facilitate attachment of said elongated tube member with liquid reservoirs of various depths;

whereby upon actuation of said switch means said drive motor drives said pump to transfer liquid from a container thereof to said gun member for discharge therefrom.

7. The fluid dispensing apparatus of claim 1 wherein:

    said elongated tube member has been truncated to an upper motor compartment and a lower pump compartment;

    said upper compartment of said truncated tube member is hermetically sealed against entry of the fluid to be dispensed;

    an outer protective shell having top and bottom ends, is mounted about said truncated tube member, drive motor and pump means;

    said outer shell having a fluid inlet opening in the bottom end adjacent the bottom of said truncated tube member, and drain holes in the top and bottom of said shell;

    a cap member for closing of an opening in the reservoir from which fluid is to be pumped;

    said cap member having an opening therein for passage through said cap of said dual tube flexible tubing member; and

    a flexible tether member connected between said cap member and the top of said protective shell;

    whereby said truncated tube member, drive motor and pump means may be suspended in a reservoir of fluid to be pumped.

8. The fluid dispensing apparatus of claim 7 wherein:

    said fluid outlet port includes a standpipe extending therefrom and connected to said other tube of said flexible tubing member; and

    said one of said dual tubes carrying said electric conductors is hermetically joined to said upper compartment.

9. An immersable fluid pump for pumping liquid from a supply thereof which comprises in combination:

a cylindrical body portion having an hermetically sealed upper compartment and an open ended lower compartment;

a centrifugal pump formed in the open end of said lower compartment comprising a cylindrical impeller rotateably mounted in said open end having a small counter bore at the bottom axis and a plurality of small diameter holes extending downwardly from the upper periphery thereof to said counter bore;

a drive motor mounted in said hermetically sealed upper compartment physically separate from but operatively connected to said cylindrical impeller;

a liquid outlet port formed at the upper end of said lower compartment;

a control and liquid discharge assembly positioned remotely from said cylindrical body portion; and

a dual tube flexible tubing member connected between said cylindrical body portion and said liquid discharge assembly having one tube connected between said liquid outlet port and said liquid discharge assembly and the other tube connected between said upper compartment and said discharge assembly.